WHAT TO EAT AND WHY

SOURCES OF SOME OF THE BASIC NUTRIENTS IN COMMON FOODS AND WHY THESE NUTRIENTS ARE IMPORTANT IN THE DAILY DIET

NUTRIENT	SOURCES	IMPORTANCE
proteins	Meat, fish, shellfish, poultry, eggs Milk (all forms), cheese (all kinds) Dried peas and beans, soybeans Peanut butter, nuts (if used generously) Cereals and breads	Supply amino acids essential for formation of body proteins Build and repair body tissue Help form blood cells and antibodies Increase resistance to disease and infections and aid in convalescence Are constituents of enzymes and hormones Supply food energy (calories) when the diet is too low in carbohydrates and fats or when more protein than is needed is eaten
carbohydrates (STARCHES & SUGARS)	Grain products: breads, cakes, cookies, crackers, cereals, grits, hominy, rice, macaroni, noodles, spaghetti Potatoes, sweetpotatoes, corn Sugars, sirups, molasses, honey, jams, jellies, candy, and other sweets Fruits, sweetened fruits	Supply food energy (calories) Help body use other nutrients
fats	Butter, margarine, cream Salad oil, oil dressings, and mayonnaise Cooking oils, lard, and other shortenings Bacon and fat in meats Peanut butter, nuts, avacados	Supply food energy (more than twice as many calories as the same weight of carbohydrates) Delay hunger because they are digested slowly Supply linoleic acid, an essential fatty acid needed for growth, health, and smooth skin
vitamins **VITAMIN A**	(The body converts carotenes in food to vitamin A.) Dark green or deep yellow vegetables and fruits such as beet greens, collards, kale, mustard greens, spinach, and other dark greens Asparagus, broccoli, carrots, okra, green peas, winter squash, sweetpotatoes Apricots, cantaloupe, peaches (yellow varieties), persimmons, prunes, tomatoes	Helps eyes adapt to light changes (protects against night blindness) Aids in keeping the skin smooth Helps keep the linings of the nose, throat, and digestive tract healthy and resistant to infection Aids in bone and tooth formation
VITAMIN D	Vitamin D is formed in the skin on exposure to sunlight or other source of ultraviolet light Fortified milk, eggs Herring, salmon, sardines, tuna, fish-liver oils	Helps the body use calcium and phosphorus Contributes to the building of bones and teeth
ASCORBIC ACID (VITAMIN C)	Citrus fruits and juices, tomatoes Strawberries, cantaloupes Dark green vegetables and green cabbage, served raw or cooked until tender Green and red peppers Potatoes, rutabagas, and turnips are good sources when eaten in large amounts	Is necessary for the formation of a cementing substance that helps heal wounds and bones, keeps blood vessels and gums healthy, and aids in formation of teeth and bones Helps resist infection Helps body use other nutrients
THIAMIN	Pork, liver, heart, kidney, lean meats, eggs Green leafy vegetables and legumes Whole grains or enriched breads and cereals Nuts Small amounts in many other foods	Helps keep appetite and digestion normal Helps keep nervous system healthy Promotes a sense of well-being and a zest for activity by helping to prevent irritability and fatigue Helps body use carbohydrates for energy
RIBOFLAVIN	Milk Lean meats, especially heart, kidney, liver, and other organ meats Cheddar-type cheeses, eggs Green leafy vegetables, dried peas, and beans Whole grains Found in small amounts in many foods	Helps body use carbohydrates, fats, and protein Contributes to clear eyesight Helps keep skin smooth, particularly around the mouth and nose
NIACIN	Meats, fish, poultry, milk Whole grain and enriched breads and cereals Dried peas and beans, nuts, peanut butter	Helps maintain health of skin, tongue, and digestive tract Helps body use carbohydrates, fats, and protein Contributes to emotional stability
minerals **CALCIUM**	Milk, all forms (an especially rich source of calcium) Cheese (especially cheddar-type cheeses), ice cream Clams, oysters, and canned fish containing bone such as salmon, sardines, and mackerel Turnip greens, mustard greens, collards, kale, broccoli	Helps build and maintain bones and teeth Assists normal blood clotting Helps muscles, nerves, and the heart to function normally
IODINE	Iodized salt, sea foods	Helps thyroid gland function properly Prevents simple goiter
IRON	Liver, heart, kidney, lean meats, shellfish Egg yolk Dried fruits and nuts, green leafy vegetables Whole grain and enriched breads and cereals Dark molasses	Combines with protein to form hemoglobin — the iron-containing protein in the blood that carries oxygen to the cells
water	Water, beverages, fruits and vegetables Most foods contain some water	Helps regulate body temperature Carries nutrients to cells and removes wastes Aids in digestion of foods Replaces water lost from the body by the skin, kidneys, and intestinal tract May contain fluorine, which helps teeth resist decay

WHAT OTHER NUTRIENTS DO YOU NEED?

OTHER VITAMINS These include vitamin K and additional B vitamins (biotin, choline, folacin, pantothenic acid, and vitamins B_6 and B_{12}). Since these vitamins are found in small amounts in a large number of foods, eating a variety of foods will provide the body with the amounts needed. These vitamins are important for one or more of the following reasons: they help keep skin healthy; help keep the nervous system healthy; help blood clot normally; help the body use other nutrients; assist in blood formation; prevent certain anemias; and promote good appetite. Vitamin E functions as a fat antioxidant and thus protects against oxidation or rancidity of unsaturated fatty acids and vitamin A. It is found in vegetable and seed oils, including such products as salad oils, mayonnaise, margarine, and shortenings; whole grain products and many fruits and vegetables contribute some vitamin E.

OTHER MINERALS Copper, phosphorus, potassium, fluorine, sodium, cobalt, magnesium, manganese, molybdenum, and zinc are some of the other minerals used by the body. For example, phosphorus combines with calcium in bones and teeth; copper helps the body make iron into hemoglobin; sodium and potassium are essential to a normal water balance in the body and to normal response of nerves and muscles. Most common foods contain one or more of these minerals; all can be obtained by eating a diet made up of many kinds of foods.

CELLULOSE Though not usually considered a nutrient, cellulose gives bulk to the diet and aids normal digestive processes. It is found in fruits, vegetables, and whole grain products.

save important nutrients by following these hints

In storing foods

- Refrigerate fresh green vegetables promptly. Put them in moisture-proof bags or in the vegetable crisper.
- Ripen tomatoes at 60° to 70° F. and out of the sun.
- Store fresh berries unwashed. They lose ascorbic acid quickly if hulled or bruised.
- Keep canned goods in a cool, dry place. Long storage and high temperatures cause loss of nutrients.
- Keep frozen foods at 0° F. or lower. If your refrigerator will not hold this temperature, buy only the amount of frozen food you can use in a short time. You lose both nutrients and flavor when foods are allowed to thaw and refreeze.
- Keep milk cold, covered, and away from strong light.

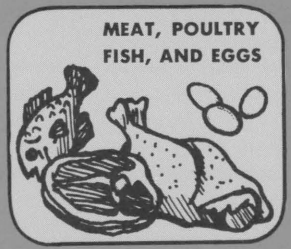
In preparing foods

- Trim or peel as little as possible from fresh vegetables because outside leaves of greens are especially high in vitamin A. This includes the leaves on broccoli.
- Cook potatoes in skin to retain most of the ascorbic acid.
- Cook vegetables until just tender. Use a tightly covered pan and a small amount of water.
- Get the full nutritive value from meat by using meat drippings and juices because they contain water-soluble B vitamins.
- Serve the soft bones found in canned fish. These bones add calcium.
- Try to avoid having left-over cooked vegetables. Holding and reheating vegetables causes additional losses of nutrients, particularly vitamin C.
- Do not wash rice before or after cooking. The washing rinses away soluble nutrients.

for buoyant health, eat these foods every day

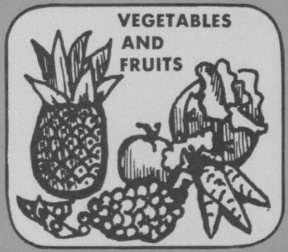
2 to 3 cups for children under 9 years
3 or more cups for children 9 to 12 years
4 or more cups for teenagers
2 or more cups for adults
3 or more cups during pregnancy
4 or more cups for nursing mothers

These amounts are in terms of an 8-ounce cup



2 or more servings

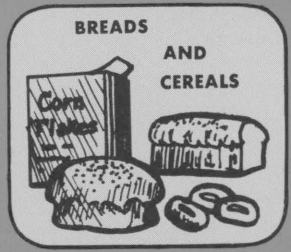
A serving is 2 to 3 ounces boneless cooked meat, fish, or poultry, 2 to 3 ounces of cheese, or 2 eggs. Vegetables high in protein, such as 1 cup cooked dry beans, peas, or lentils, or 4 tablespoons of peanut butter, may be used for one of these servings



4 or more servings (for vitamin A serve a dark-green or deep-yellow vegetable at least every other day)

For ascorbic acid serve a citrus fruit, tomatoes, or the juices of either (see chart for other foods that may be used)

A serving is ½ cup of fruit or vegetable, 1 medium potato, 1 medium orange or tomato, or ½ medium grapefruit or cantaloupe



4 or more servings

A serving is 1 slice bread, ½ to ¾ cup cooked cereal, rice, grits, macaroni, noodles, or spaghetti, or 1 ounce ready-to-eat cereal

COULD YOU EAT MORE THAN THESE SUGGESTED AMOUNTS? Yes! The number of servings listed above is the foundation for a good diet. The size of serving will vary with the age and activity of the individual.

WHAT ELSE COULD YOU EAT? You may use fats, oils, sugars, and refined, non-enriched foods. But go easy on these foods; many of them add little else than calories.

DO YOU NEED FOOD SUPPLEMENTS? The answer to this question rests with your doctor. Under ordinary conditions, all the nutrients needed for good nutrition can be obtained by eating a diet composed of a variety of foods. Vitamin and mineral preparations or other dietary supplements should be used only to make up for a specific deficiency in the diet or for a specific health problem. Obviously, this requires proper diagnosis by your physician along with careful evaluation of your food habits.

This circular was prepared by GERALDINE ACKER, Professor of Foods and Nutrition.

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